C 30108 (Pages : 2) Name.....

Reg. No.....



**SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE [2014 SCHEME] EXAMINATION, NOVEMBER 2017**

Computer Science Engineering

CS 14 704 E—SIMULATION AND MODELLING

Time : Three Hours Maximum : 100 Marks

**Part A**

*Answer any* **eight** *questions.*

I. (a) Distinguish between continuous and discrete system simulation.

(b) Write notes on uniform distribution.

(c) State the use of random number generation.

(d) Mention the features of GPSS.

(e) What are the simulation experiments used for verification ?

(f) Write the parameters of queue.

(g) State the difference between the single server queue and multi server queue.

(h) Mention the merits of simulation of stochastic networks.

(i) What is a network diagram ? Give examples.

(j) List the applications of computer simulation.

(8 × 5 = 40 marks)

**Part B**

*Answer* **all** *questions.*

II. (a) Explain the process of simulation of continuous system.

*Or*

(b) Describe the steps involved in generating random samples from discrete distributions.

III. (a) Describe the method of evaluation of simulation experiments.

*Or*

(b) Elaborate on methods to access the statistical reliability in evaluating simulation experiments.

**Turn over**

IV. (a) Explain the methods for formulation of queuing problems.

*Or*

(b) Elaborate on simulation of tandom queues.

V. (a) Describe the simulation of PERT network with an example.

*Or*

(b) Elaborate on the simulation using forward pass computations using an example. Determine float and slack time.

(4 × 15 = 60 marks)